6. MITIGATION MEASURES

A variety of design features were built into the various alternatives to help minimize adverse environmental impacts. These best management practices serve to reduce or eliminate potentially harmful secondary waste streams. Further, it is generally assumed that best management practices would be followed regarding erosion control, minimization of secondary waste, and safe handling of materials to minimize accidents or the effect of accidents. Specific mitigation measures are described below.

Impacts to cultural and archaeological resources are best minimized by avoidance. Although no such resources have been identified in the project site area, should any cultural or archaeological resources be encountered, construction would be immediately stopped, and the appropriate DOE personnel and the Tennessee State Historic Preservation Officer would be notified. Specific mitigation would follow the advice and guidance of these individuals.

Erosion control measures, such as silt fences, combined with timely construction of buildings and parking lots would reduce the potential for increased siltation and turbidity in White Oak Creek and White Oak Lake from runoff. Also, proper maintenance of drainage culverts, gate valves, and the detention basin would reduce the likelihood of soil erosion from storm water overflows.

Air quality mitigation measures that may be used during the construction phase to control dust include:

use of water or chemicals during site clearing, digging, and grading;

application of asphalt, concrete, water, or grass seed on roadways, fill stockpiles, and other surfaces that can yield dust; and

covering of open truck beds.

Impacts of vehicular exhaust may be reduced by refraining from unnecessary idling of equipment and implementation of transportation controls that reduce work-related vehicle miles to the minimum required to the task (WM PEIS, DOE 1997a).

Impacts from waste treatment processes utilize efficient emission controls designed for the specific process as described above.

Inspecting and maintaining the trucks transporting waste on a regular basis would mitigate transportation impacts. Drivers would be required to meet strict selection and training criteria. Planning of specific transportation routes using DOT routing guidelines would minimize risk. The TRANSCOM system would be used to monitor shipments to the Waste Isolation Pilot Plant. Extensive emergency response capability exists and would be maintained at DOE, the trucking contractor, and in communities along the transportation routes (WIPP SEIS-II, DOE 1997b).

A 0.016-ha (0.03-acre) wetland on the proposed project site is expected to be destroyed by construction. Potential mitigation measures include avoidance, minimization, or compensation. Redesigning the layout of the TRU waste treatment facility could potentially avoid or minimize impact to this wetland. Should this not be practical, then compensatory mitigation such as new method construction could be done. Redesign of the sediment/storm water detention basin could result in a constructed wetland.

REFERENCES

DOE 1997a. Final Waste Management Programmatic Environmental Impact Statement for Managing Treatment, Storage, and Disposal of Radioactive and Hazardous Waste, DOE/EIS-0200-F, U.S. Department of Energy, Washington, D.C., May 1997.

DOE 1997b. *Waste Isolation Pilot Plant Disposal Phase Final Supplemental Environmental Impact* Statement, DOE/EIS-0026-s-2, U.S. Department of Energy, Washington, D.C., September 1997.